

## CERTIFICATION

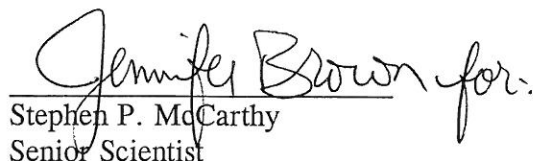
The Citizens Financial Group (Citizens) Phase I Environmental Site Assessment (Phase I) described herein was conducted by the undersigned, of LFR Inc. (LFR). LFR's investigation consisted solely of the activities described in Section 1.2 of this report, in accordance with the Citizens Phase I Scope of Work.

Report Prepared By:



Andrea L. Blackburn  
Project Scientist

Report Reviewed and Approved By:



Stephen P. McCarthy  
Senior Scientist

## CONTENTS

CERTIFICATION .....	I
1.0 EXECUTIVE SUMMARY .....	1
1.1 Purpose .....	1
1.2 Scope of Services/Methodology .....	1
1.3 Findings .....	2
1.4 Conclusions .....	4
1.5 Recommendations .....	5
2.0 SITE DESCRIPTION .....	5
2.1 Site Location and Legal Description .....	5
2.2 Site and Vicinity Characteristics .....	6
2.3 Site Improvements .....	6
2.3.1 Structures & Improvements .....	6
2.3.2 Roads .....	7
2.3.3 Heating Source .....	7
2.3.4 Sanitary Sewer Disposal .....	7
2.3.5 Water Supply .....	7
2.4 Information from Site Owner/Operator .....	7
2.5 Present Ownership and Use .....	8
2.6 Adjoining Properties .....	8
2.7 Environmental Permits and/or Violations .....	9
3.0 SITE HISTORY .....	9
3.1 Information from Site Owner/Operator .....	9
3.2 Previous Environmental Reports .....	10
3.3 Building Department Records .....	14
3.4 Title Records .....	15
3.5 Local Records .....	15
3.5.1 Local Fire Departments .....	16
3.5.1.1 Woburn Fire Department .....	16
3.5.1.2 Wilmington Fire Department .....	16

3.5.2 Clerk's Office .....	16
3.5.2.1 Woburn City Clerk .....	16
3.5.2.2 Wilmington Town Clerk .....	16
3.5.3 Building Department .....	16
3.5.3.1 Woburn Building Department .....	16
3.5.3.2 Wilmington Building Department .....	16
3.5.4 Engineering Department .....	17
3.5.4.1 Woburn Engineering Department .....	17
3.5.4.2 Wilmington Engineering Department .....	17
3.5.5 Health Department .....	17
3.5.5.1 Woburn Health Department .....	17
3.5.5.1 Woburn Health Department .....	17
3.6 Historical Sources .....	17
3.6.1 Sanborn Fire Insurance Maps .....	17
3.6.2 Aerial Photographs .....	17
3.6.3 Historical Atlases/USGS Topographic Maps .....	18
3.6.4 City Directories .....	19
3.6.5 Additional Historical Sources .....	19
3.6.6 Summary of Historical Information .....	19
4.0 ENVIRONMENTAL SETTING .....	20
4.1 Topography .....	20
4.2 Hydrology .....	20
4.2.1 Surface Water .....	20
4.2.2 Wetlands .....	20
4.2.3 Hydrogeology .....	20
5.0 RECORDS REVIEW .....	21
1. The Site is listed as a CERLCIS-NFRAP site, indicating it was removed from the CERCLIS list. ....	21
5.1 Federal Records .....	22
5.1.1 NPL sites .....	22
5.1.2 CERCLIS sites .....	24
5.1.3 RCRA CORRACTS facilities .....	24
5.1.4 RCRA TSD facilities .....	24
5.1.5 RCRA Generators .....	25
5.1.6 ERNS Site .....	25

5.1.7 FINDS Site .....	25
5.2 State Records.....	25
5.2.1 State Hazardous Waste Sites (SHWS) .....	25
5.2.2 Registered USTs.....	28
5.2.3 Leaking LUSTs.....	28
5.2.4 SWF .....	28
5.2.5 Spills .....	29
5.3 Non-Geocoded Sites .....	29
6.0 MOLD EVALUATION.....	29
6.1 Interview of Site Contact.....	29
6.1.1 Question/Answer #1 .....	29
6.1.2 Question/Answer #2 .....	29
6.1.3 Question/Answer #3 .....	30
6.1.4 Question/Answer #4 .....	30
6.1.5 Question/Answer #5 .....	30
6.1.6 Question/Answer #6 .....	30
6.1.7 Question/Answer #7 .....	30
6.1.8 Question/Answer #8 .....	31
6.1.9 Question/Answer #9 .....	31
6.2 Visual Assessment .....	31
6.2.1 Mold Growth.....	31
6.2.2 Mold Odors .....	31
6.2.3 Roof Ponding .....	31
6.2.4 Roof Patching.....	31
6.2.5 Water Staining, Standing Water, or Discoloration of Building Materials .....	31
6.2.6 Flooding, Leaking, Groundwater Intrusion, or Sprinkler System Discharge ..	32
6.2.7 High Humidity.....	32
6.2.8 Heat Exchangers/Cooling Towers.....	32
7.0 SITE RECONNAISSANCE.....	32
7.1 Underground Storage Tanks (USTs).....	32
7.2 Aboveground Storage Tanks (ASTs).....	32
7.3 Hazardous Substances .....	33



7.4 Hazardous Waste .....	33
7.5 Polychlorinated Biphenyls .....	34
7.6 Solid Waste Disposal .....	34
7.7 Stained Surfaces and Distressed Vegetation .....	34
7.8 Underground Structures & Sanitary Wastewater Disposal .....	34
7.9 Additional Issues of Environmental Concern .....	35
7.9.1 Asbestos-Containing Material (ACM) .....	35
7.9.2 Lead Based Paint (LBP) .....	35
8.0 LIMITATIONS & CONDITIONS .....	35
9.0 REFERENCES .....	36

## FIGURES

- 1 Topographic Map
- 2a Woburn Tax Assessor's Map
- 2b Wilmington Tax Assessor's Map
- 3 Site Plan
- 4 Street Map
- 5 Aerial Photographs (A through D)
- 5a 1978 Aerial Photograph
- 5b 1973 Aerial Photograph
- 5c 1954 Aerial Photograph
- 5d 1938 Aerial Photograph

## APPENDICES

- A Database Search Report
- B Supporting Documentation (including No Sanborn Coverage)
- C Resumes of Environmental Consultant

## 1.0 EXECUTIVE SUMMARY

LFR Inc. (LFR) was retained by Citizens Financial Group (Citizens) to conduct a Citizens Phase I Environmental Site Assessment (Phase I) of the New England Resins and Pigments, Inc. (NERP) facility located at 316 New Boston Street in Woburn, Middlesex County, Massachusetts (the Site). The 19.8-acre Site is improved with a 67,620-square foot, one and one-half-story industrial building with an 8,892-square foot addition. NERP, a distributor of pigment and resin materials, currently occupies the Site building. No manufacturing, mixing, or repackaging of materials occurs on Site. NERP first occupied a small portion of the Site building in the early 1970s and gradually expanded until the entire Site building was occupied by NERP in the late 1970s. Historical records and previous environmental reports indicate that prior to the 1970s, the Site was occupied by International Agricultural Corporation, a manufacturer of fertilizers and acid phosphate, and Merrimac Chemical Corporation, a manufacturer of various chemicals.

### 1.1 Purpose

The purpose of this Citizens Phase I is to: (i) provide an objective third party opinion as to the environmental status or condition of the Site; (ii) identify any recognized environmental conditions: presence or likely presence of any hazardous substances or petroleum products on the Site under conditions that indicate an existing release, past release, or material threat of release; (iii) recommend any additional testing or investigation warranted by the findings of the Citizens Phase I and provide cost estimates for such additional scope of work; and, (iv) gather preliminary information regarding the general compliance of the Site with applicable environmental laws, regulations, and permits.

### 1.2 Scope of Services/Methodology

The Citizens Phase I was conducted in general conformance with the requirements set forth in the American Society for Testing and Materials (ASTM) standard E 1527-00 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", as amended by the Citizens Phase I Scope of Work. To complete this assessment, LFR's scope of services included the following:

- review of federal and state regulatory agency databases identified by the Citizens Phase I Scope of Work for the Site and a selected radius around the Site;
- contact with local environmental regulatory agencies to inquire about environmental conditions at the Site and its vicinity;

- review of the Site history through available historical sources identified by the Citizens Phase I Scope of Work;
- a reconnaissance of the Site to make surficial observations for evidence of recognized environmental conditions;
- a reconnaissance of properties located within one-quarter mile of the Site;
- a review of adjoining properties to identify the potential use of hazardous materials;
- identification of suspect lead-based paint (LBP) within the Site building, if the building was constructed prior to 1978 and used for residential or day care purposes;
- identification of friable suspect asbestos-containing material (ACM) within the Site building, if the building was constructed prior to 1978;
- interviews with people knowledgeable about the Site regarding current and past Site usage and facility operations; and,
- preparation of this report.

### 1.3 Findings

A summary of the key findings of the Phase I is provided below:

- The Site is located along the Woburn-Wilmington line in Middlesex County, Massachusetts. The area surrounding the Site has been used for various industrial purposes for over a century including chemical companies, glue factories, and tanneries.
- The Site is occupied by a one and one-half story industrial building that is utilized for office and warehouse space. The Site is serviced with municipal water and sewer provided by the City of Woburn. The Site is not serviced with natural gas. Portions of the Site building are heated via electricity and propane gas. Two roof-mounted HVAC units cool the office portion of the Site building. A 500-gallon aboveground propane tank is located to the northwest of the building and is enclosed within chain-link fencing. A 4,000-gallon aboveground epoxy resin tank with a secondary containment wall is located within the southwestern corner of the warehouse. NERP has a permit on file with the Woburn Clerk's Office and Fire Department for the storage of 4,000-gallons of flammable liquid, which is renewed annually.

- LFR observed a variety of hazardous substances within the Site building at the time of the Site visit, including numerous 55-gallon drums and 5-gallon buckets of epoxy resins (both flammable and non-flammable) and corrosive materials, in addition to numerous 40-pound bags of pigment materials. All areas of hazardous material storage were observed to be neat and no areas of significant staining were observed.
- Historical use of the Site includes the manufacture of chemicals, fertilizers and acid phosphate, the manufacture of bean bags, the storage of lumber products, and the distribution of resins and pigments. Previous reports prepared for the Site indicate that a former lagoon was located along the southwestern portion of the property, in which wastes generated during fertilizer manufacturing operations were disposed of.
- Historical research indicates that a 1,000-gallon gasoline underground storage tank (UST) was removed from an area southwest of the Site building in 1983. LFR did not encounter documentation for the removal of this UST. In addition, two (2) 250-gallon aboveground storage tanks (ASTs) (contents unknown), two (2) 275-gallon fuel oil ASTs, and one sulfuric acid tank of unknown capacity were formerly located at the Site. The two (2) 275-gallon fuel oil ASTs were reportedly removed in 2005. LFR did not encounter any documentation for any of the ASTs.
- The Site was identified by the database search as a state hazardous waste site (SHWS) and a Comprehensive Environmental Response Compensation, and Liability Information System (CERCLIS) No Further Remedial Action Planned (NFRAP) site. The Site was listed as a "Location to be Investigated" (LTBI) (Site No. 3-1264) by the Massachusetts Department of Environmental Protection (MassDEP) in January 1987 based on the Site's inclusion on the CERCLIS list. Several environmental assessments have been conducted for the Site, including a 1980 preliminary site assessment, 1986 site assessment, a 1991 subsurface soil investigation, a 1991 additional sampling and analysis investigation, a 1994 environmental site evaluation update, and various site inspections conducted by the United States Environmental Protection Agency (U.S. EPA) during the 1980s and 1990s. Low levels of volatile organic compounds (VOCs) have been detected within groundwater beneath the Site but at levels below applicable reportable concentrations. Total petroleum hydrocarbons (TPH) and VOCs were detected in soils collected from the Site in 1991 at concentrations above applicable reportable concentrations. Toluene has been consistently detected within surface water samples collected from the drainage ditch located along the eastern portion of the Site. Upstream surface water samples contained higher concentrations than downstream samples, indicating an off-site source. Soil samples that were collected by the U.S. EPA in 1997 within the former lagoon area contained concentrations of numerous constituents including metals, VOCs, semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs), but at concentrations below applicable reportable concentrations.

- A Licensed Site Professional No Further Action required (LSPNFA) opinion was reportedly submitted for the Site on October 28, 1994, indicating that no further remedial action was necessary at the Site. Investigations conducted at the Site by the U.S. EPA in the late 1990s resulted in the removal of the Site from the CERCLIS list in 2002.
- The database search identified numerous properties within the immediate vicinity of the Site as either National Priority List (NPL), CERCLIS, and/or SHWS sites, and/or generators of hazardous waste generators. Additionally, the former Woburn Landfill, which was capped in 2002, abuts the Site to the west.
- The northwestern-adjointing and upgradient property, occupied by the Olin Corporation, has recently been listed on the Final NPL. The U.S. EPA NPL is a list of uncontrolled or abandoned hazardous waste sites that have been identified for priority remedial actions under the Superfund Program. Olin Corporation was historically used for the manufacture of various chemicals between 1953 and the late 1980s. A groundwater plume containing various VOCs extends about 0.75 miles west of the Site. The groundwater regime beneath this property is split into northern and southern flow directions.
- The southern-adjointing property is occupied by the Industri-Plex NPL site. Groundwater flow was documented to be toward the south, away from the Site.

## 1.4 Conclusions

LFR has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Practice E 1527-00, as amended by the Citizens Phase I Scope of Work. This assessment has identified the following Recognized Environmental Conditions (RECs) associated with the Site:

- The use and storage of OHM at the Site poses a potential threat of release of OHM to soil and groundwater if OHM is improperly disposed of or mishandled. However, LFR did not observe evidence of improper storage, disposal, or mishandling of OHM at the Site, and as such the associated risk is minimal.
- Historic use of the Site for the manufacture of chemicals and fertilizers and the former presence of a 1,000-gallon gasoline underground storage tank at the Site poses a potential threat of release of OHM to soil and groundwater. However, several subsurface investigations have been conducted at the Site, the results of which indicate that, although detectable levels of various constituents were present within soil and groundwater samples collected from the Site, constituent concentrations were not detected above applicable reportable concentrations.

- Floor drains can become conduits for subsurface contaminant migration if OHM is improperly disposed of therein. LFR did not observe evidence of discharge to floor drains and all observed floor drains within the Site building were capped. Therefore, associated risk is minimal.
- The presence of a NPL site on the northwestern-adjointing property poses a material threat of release of OHM to soil and groundwater if the groundwater plume extends onto the Site.

The Site is classified as a “**Medium Risk**” based on the above-referenced RECs.

## 1.5 Recommendations

Based on LFR’s observations and records review, LFR recommends the following:

- LFR recommends that a comprehensive file review of U.S. EPA files for the Olin Corporation facility be conducted to determine if the Site’s proximity to the Olin Corporation NPL site has impacted soil or groundwater beneath the Site. Based on the results of the file review, a subsurface investigation may be recommended for the Site.

## 2.0 SITE DESCRIPTION

### 2.1 Site Location and Legal Description

The Site consists of two parcels of land that span the Woburn-Wilmington line in Middlesex County, Massachusetts. The southern portion of the Site consists of a 19.8-acre parcel of land improved with a one and one-half-story industrial structure and is identified by the Woburn Assessor’s Office as Map 4, Block 5, Lot 2 with a legal address of 316 New Boston Street, Woburn, Massachusetts. The northern portion of the Site consists of a 2.75 acre parcel of undeveloped, wooded land identified by the Wilmington Assessor’s Office as Map 37, Lot 1 with a legal address of 895 Rear Woburn Street, Wilmington, Massachusetts. New England Resins and Pigments (NERP) is listed as the owner of each parcel. A United States Geological Survey (USGS) topographic map, Tax Assessor’s Maps, a Site Plan, a Street Map, and Aerial Photographs are included as Figures 1 through 5, respectively.



## 2.2 Site and Vicinity Characteristics

The Site is improved with a one and one-half-story industrial building currently occupied by NERP. A drainage ditch that flows in a southerly direction is located along the eastern portion of the Site, adjacent to which is the Boston-Maine railroad. According to the Woburn Building Department, the Site and vicinity are zoned for industrial use. The Site is located in heavily industrialized areas of Woburn and Wilmington, Massachusetts. Industrial properties are located to the south and east of the Site along New Boston Street in Woburn, Massachusetts. New Boston Street becomes Woburn Street in Wilmington, Massachusetts, along which are several industrial properties to the north and northeast of the Site. The Woburn landfill, which was capped in 2002, adjoins the Site to the west.

The northwestern-adjointing property is occupied by the Olin Corporation, which is on the NPL. This is considered to be a “high risk” property. The southern and eastern-adjointing properties are included within the boundaries of the Industri-Plex NPL site.

## 2.3 Site Improvements

### 2.3.1 Structures & Improvements

The Site is improved with a main 67,620-square foot, one and one-half-story office/warehouse building, which according to Woburn Assessor’s Office was originally constructed in 1970. The main building is constructed of a masonry exterior with a concrete slab-on-grade foundation and flat tar and gravel roof. The office portion of the main building is heated via an electric-fired forced air system. The warehouse portion of the main building is not heated. Unused, new packaging for retail sale and chemicals that are not temperature sensitive, including a 4,000-gallon above ground epoxy resin tank, are stored within the main warehouse.

An 8,892-square foot addition constructed of pre-finished metal and concrete block with a flat tin roof and a concrete slab foundation was added to the northern portion of the main warehouse building in 1986. This portion of the Site building is heated, as chemicals that are temperature sensitive, mainly epoxy resins, are stored in this portion of the Site building. A description of chemicals that were observed during LFR’s site visit is presented in Section 7.3.

LFR observed a square, concrete vault structure with a wooden interior near the northwest corner of the Site building within the wooded portion of the Site. According to Mr. O’Connor, this structure was believed to have been used for the storage of explosive materials by International Minerals and Chemical. Mr. O’Connor also stated that it is not economically feasible to remove this structure from the property.

### **2.3.2 Roads**

Access to the Site is obtained via an asphalt paved driveway that originates off of New Boston Street along the southern portion of the Site. The paved driveway wraps along the western portion of the Site. An additional paved parking area is located southwest of the Site building. The area located to the south of the main building is also paved with asphalt.

The Site building has eight loading dock areas, six along the western side of the Site building and two along the southern side. In addition to asphalt pavement within the parking areas, concrete pads were observed within each of the exterior portions of the loading dock areas.

### **2.3.3 Heating Source**

The portion of the Site building occupied by offices is heated via an electric-fired forced air heating system and cooled via central air. According to Mr. O'Connor, two HVAC units are located on the roof. The heated portion of the warehouse is heated via propane that is stored within a 500-gallon aboveground tank located within a fenced in area adjacent to the northwestern corner of the Site building. The Site is not serviced with natural gas.

According to Mr. O'Connor, the main building was not heated prior to NERP's occupancy of the Site, although the two smaller structures were historically heated with fuel oil. Two (2) 275-gallon aboveground storage tanks (ASTs) were removed from the eastern most structure that was demolished in 2005.

### **2.3.4 Sanitary Sewer Disposal**

The City of Woburn provides municipal sewer services to the Site building. A date for the initial municipal sewer connection was not available.

### **2.3.5 Water Supply**

The City of Woburn provides drinking water to the Site building.

## **2.4 Information from Site Owner/Operator**

Mr. O'Connor stated that a fire destroyed the original structure at the Site sometime in the early 1970s. The existing Site building was re-constructed shortly thereafter. LFR reviewed permits for the re-construction of two warehouse structures dated June 1, 1971 and August 2, 1972. Mr. O'Connor also stated that the office portion of the main building was added in the early 1980s, and that an addition was added to the northern portion of the building in the mid-1980s, which is used to store temperature sensitive materials. Mr. O'Connor also provided information regarding Site operations.



Please see Section 7.0 of this report for information regarding Site operations and materials stored/used on-Site.

## 2.5 Present Ownership and Use

According to the Woburn Assessor's Office records, "New England Resins" has owned the Site since January 1978. NERP occupied the Site building at the time of LFR's inspection. NERP is a distributor of resins and pigments and does not conduct any manufacturing, mixing, or repackaging of any materials on-Site. Several hazardous substances are stored at the Site, as discussed in Section 7.3.

## 2.6 Adjoining Properties

The use of the adjoining properties at the time of LFR's investigation is summarized as follows:

- A commercial building occupied by The Fran Company (324 New Boston Street) adjoins the Site to the north. The Olin Corporation adjoins the Site to the northwest. The database search identified the Olin Corporation as a proposed NPL site, a CERCLIS site, a RCRA CORRACTS facility, a large quantity hazardous waste generator, a RCRA TSDF site, a State and spill site, and a FINDS site (see Section 5.0).
- The "Industri-Plex" complex abuts the Site to the immediate south of the Site and east of the Site across New Boston Street. Industri-Plex was identified by the database search as an NPL site, a CERCLIS site, a State site, and a FINDS site (see Section 5.0). Portions of the complex have been redeveloped for industrial use, including Procoating, Inc. and a lumberyard, each of which adjoins the Site to the south.
- Various industrial and/or commercial properties currently adjoin the Site to the east across the Boston-Maine railroad and New Boston Street, including Festive Occasions and Party Rental Center (317 New Boston Street) and the Dundee Office Park (325 New Boston Street), which is occupied by several businesses including LaserStar, Bay State Bindary, Pool and Patio, Nortech, and Wayne Industrial Equipment. Dundee Park is listed by the database as a State site (see Section 5.2.1). In addition, two businesses with addresses of 325 New Boston Street (Middlesex Lead Inspection and Repair and Astro Precision Machine Inc.) are listed as small quantity generators of hazardous waste (see Section 5.1.5).
- The Woburn Landfill adjoins the Site to the west. See Section 5.2.4 for more information.

## 2.7 Environmental Permits and/or Violations

According to the Woburn City Clerk and the Woburn Fire Department, a permit was issued to NERP for the storage of 4,000-gallons of flammable substances. This permit is renewed annually. The Woburn City Clerk's Office informed LFR that permits may have been issued to the Site in 1940, 1944, and 1988, although their records did not specify what type of activities the associated permits were for. The Clerk's Office informed LFR that these permits would be maintained at the Woburn Fire Department. LFR attempted to obtain copies of said permits, but Lt. Nelson of the Woburn Fire Department indicated that these files may be archived and are not readily available. LFR was not provided with nor encountered information regarding any other recorded environmental permits and/or violations for the Site.

## 3.0 SITE HISTORY

### 3.1 Information from Site Owner/Operator

Mr. O'Connor stated that NERP has occupied the Site since the early 1970s. In addition to NERP, the Site building was formerly occupied by three other tenants during the early 1970s: Brown Terminal and Warehouse Company (the owner of the Site at the time), a lumber company, and a bean bag manufacturer. By the late 1970s, NERP occupied the entire Site building. NERP's operations have remained the same since the late 1970s.

Mr. O'Connor informed LFR that International Mineral and Chemical occupied the Site prior to the 1970s and provided LFR a 1951 framed schematic of the Site. A review of this figure indicates that a 420 x 160' main building was depicted where the main Site building now exists, which was labeled for the storage of fertilizers and a phosphate grinder. In addition, three smaller structures are depicted to the south of the main building and were labeled as a 70 x 27' repair shop, a 70 x 20' locker room, and a 66 x 29' office building. A fourth smaller structure was depicted to the north of the main building and was labeled as 50 x 30' fertilizer storage. An aboveground sulfuric acid tank was depicted near the southwest corner of the main building, and an underground fireproof dynamite vault and 250-gallon aboveground tank (unlabeled) are depicted to the south of the sulfuric acid tank, west of the repair shop. A 1,000-gallon gasoline tank is depicted to the south of the repair shop but there was no indication as to whether this tank was above or below ground; however, previous reports indicate this was an underground storage tank. A 250-gallon fuel oil above ground tank was depicted to the east of the locker room. Two (2) 275-gallon fuel oil tanks were depicted in the 1951 plan within the basement of the smaller office structure. Mr. O'Connor informed LFR that these tanks were ASTs and were removed in 2005. LFR did not encounter permits for any of the above-mentioned tanks or historic Site operations.

Mr. O'Connor did not provide LFR with any further information regarding the history of the Site.

## 3.2 Previous Environmental Reports

LFR was provided with an August 1994 Environmental Site Evaluation Update (ESE Update) report that was prepared for New England Resins and Pigments, Inc. by GZA Geoenvironmental, Inc. (GZA). In addition, LFR encountered three previous reports for the Site during a MassDEP file review, including:

- Ecology and Environment, Inc. (E&E) (1980). Preliminary Site Assessment, 316 New Boston Street, Woburn, Massachusetts, August 6.
- GZA (1991). Additional Sampling and Analysis, New England Resins and Pigments, Inc., 316 New Boston Street, Woburn, Massachusetts, September.
- Roy F. Weston, Inc. (WESTON) (1998). Final Site Inspection Report, New England Resins and Pigments, Woburn, Massachusetts, prepared for the U.S. Environmental Protection Agency, Region I, August 11.

Key findings of previous reports are summarized below:

### 1980 Preliminary Site Assessment (E&E)

- The Site consists of a 16.15-acres lot located to the south of the Woburn Wilmington line and is occupied by New England Resins and Pigments. One large warehouse building and three smaller buildings occupy the Site.
- New England Resins and Pigments is a corporation that has been in existence since 1941 and was previously owned by Roger Brown, John Mechem, and Nancy Gray, Trustees of Brown Terminal and Warehouse Company.
- The Merrimac Chemical Company had been located at the Site in the past. It burned and ten years prior to the report date, New England Resins and Pigments purchased the Site.
- The Site is used for the storage of minerals such as clay, talc, and bentonite clay that are brought into the Site by rail car. These packaged materials are left unopened and are stored in the warehouse until they are requested for distribution by NERP to their customers. No chemicals or hazardous wastes were reportedly used, manufactured, generated, or disposed of during Site activities.
- No wells in use or in existence were reported to have been present at the time of the assessment.

1991 Additional Sampling and Analysis Report (GZA)

- On August 2, 1991, ATEC Inc. (ATEC) issued a report titled "Subsurface Soil Investigation Report," which outlined subsurface activities that were conducted at the Site. Four soil borings were installed and soil samples were collected and submitted for laboratory analysis of TCLP metals, VOCs, and TPH, the results of which indicated that while elevated concentrations of metals were not present, elevated levels of VOCs (475,000 ppb) and TPH (845 ppm) were detected within a soil sample collected from the area where a gasoline UST was formerly located. The elevated VOCs and TPH constituted a "release" as defined in MGL, Chapter 21E. ATEC recommended additional subsurface exploration and testing and the completion of a Phase I - Limited Site Investigation," as defined in the MCP.
- A gasoline UST was formerly located south of the main Site building, near one of the two small wooden buildings and was reportedly removed in 1983. There was no indication of the condition of the tank upon its removal or the chemical quality of soil surrounding the tank.
- GZA conducted additional sampling and chemical analysis of soil, groundwater, and surface water from the NERP site in July and August 1991.
- GZA advanced eight additional soil borings at the Site in 1991 within the area of the UST reported to have been removed in 1983. The results of the 1991 investigation indicated that although gasoline constituents were detected within soil and groundwater samples collected from locations at and downgradient of the former gasoline UST, detected concentrations were several orders of magnitude lower than those identified by ATEC. Concentrations of gasoline constituents in groundwater samples analyzed by GZA were below available standards for public drinking water supplies.
- No floating separate phase petroleum product was detected in any of the seven monitoring wells in the vicinity of the former tank.
- Toluene was detected at a trace concentration in a surface water sample collected from the drainage ditch at the downstream end of the Site property. An upstream surface water sample collected from the drainage ditch, north of the Site building, exhibited a higher concentration of toluene, indicating an upgradient (off-site) source.
- GZA opined that based on the lack of an on-going source for these compounds, and the relatively low concentrations encountered, the Site did not pose a threat to public health.

---

1994 Environmental Site Evaluation Update (GZA)

- The Site occupies approximately 13 acres of land at 316 New Boston Street in Woburn and approximately 4 acres of land in the Town of Wilmington. The portion of the Site located in Woburn is occupied by a warehouse/office building and two small wooden buildings, while the portion of the Site located in Wilmington consists of undeveloped, wooded land.
- A hill with several bedrock outcrops is located to the northwest of the Site building and a drainage ditch flows in a southerly direction along the east side of the Site building. The drainage ditch discharges to Halls Brook Storage Area, which ultimately discharges to the Aberjona River approximately two miles southeast of the Site. Groundwater flow beneath the Site was documented to flow east toward the drainage ditch, while regional groundwater flow was anticipated to be to the south.
- The Site is occupied by New England Resins & Pigments, Inc., a distributor of pigment and resin materials. No manufacturing or mixing of pigment or resin materials occurs at the Site. New England Resins & Pigments has occupied the Site since the early 1970s.
- Prior to NER's occupancy of the Site, the property was occupied by the International Agricultural Corporation, a manufacturer of fertilizers and acid phosphate. Historical research indicated the presence of eight tanks, a sulfuric acid tank, and two "vats". The content of the eight tanks and the two vats was not specified. A fire that occurred in 1971 destroyed the original Site building. The northern and southern portions of the existing Site building were constructed following the fire. A warehouse portion was added to the Site building in 1987 that connected the northern and southern portions of the Site building.
- The Site was first listed as a "Location to be Investigated" by the Department of Environmental Protection in January 1987 based on the Site's inclusion on the CERCLIS list. The Site was reportedly listed as a CERCLIS site due to information presented in reports prepared in 1980 by E&E, indicating that a lagoon had been present at the Site during its past use as a fertilizer manufacturing facility.
- The Site is adjoined to the north/northwest by the Olin Chemical facility, to the east/northeast by several commercial and light industrial facilities, to the south by a portion of the former Industri-plex Superfund Site, and to the west by the City of Woburn landfill.

- GZA had prepared two previous reports for the property prior to the completion of the 1994 ESE Update report, including a June 1986 Site Assessment report and a September 1991 Additional Sampling and Analysis report (summarized above). The 1986 GZA report noted that two previous reports had been prepared for the Site by E&E, a review of which indicated that neither surface nor groundwater contamination resulting from present operations at the Site was apparent, but noted the former presence of a lagoon in which nitrates may have been dumped, located in the west-central portion of the Site dating from the property's use as a fertilizer factory. The lagoon had been filled, portion of it with boulders, construction debris, and miscellaneous rubble at the time of GZA's initial work at the Site. Five soil borings and four monitoring wells were installed at the Site by GZA during the 1986 assessment, the results of which indicated that VOCs were not detected within collected groundwater samples. Low levels of VOCs were however detected in surface water samples from the drainage ditch, but GZA concluded that the source of the VOCs was from off-site as upgradient samples contained higher VOC concentrations than downgradient samples. A well was installed by GZA in 1986 in a location downgradient of the second UST location; no VOCs were detected within groundwater samples submitted for that well in 1986.
- Site observations made in 1994 indicate that the general appearance of the Site and the type of operations conducted by NER have not changed significantly since the 1986 site reconnaissance. An addition to the Site building was constructed, connecting the former north and south warehouses into one contiguous building. Paved entrance roads, parking areas, and shipping and receiving bays are located on the western and southern portions of the Site, while the remainder of the Site is undeveloped. Miscellaneous demolition rubble and debris was observed along the western portion of the Site. The interior of the Site building consisted of office and warehouse space. Numerous types of resins and pigments, both flammable and non-flammable, were observed within the warehouse in addition to a variety of unused/empty containers that are kept in stock ready for purchase. All of the resin and pigment containers were observed to be in good condition with no evidence of staining. The concrete flooring within the warehouse was observed to be in excellent condition.
- Groundwater samples were collected from eight existing monitoring wells and surface water samples were collected from the drainage ditch as part of the 1994 evaluation. The results indicated the presence of low concentrations of VOCs in the area of the former gasoline UST removed in 1983. No free phase product was observed within any of the monitoring wells at the Site. Toluene was detected within the drainage ditch at the Site but at greater concentrations in the upgradient sample than the downgradient sample, suggesting an off-site source. None of the constituents detected was present at a concentration exceeding reportable concentrations for groundwater category RCGW-2.



### 1998 Final Site Inspection Report (WESTON)

This report summarizes the investigations that were described above. Additional information that was not provided or that needs clarification within the afore-mentioned reports is summarized below:

- The Merrimac Chemical Company occupied the property between 1853 and 1929. Other chemical manufacturers occupied the Site between 1929 and 1963, at least one of which maintained a waste or storage lagoon at the rear of the property.
- On September 15, 1997, START personnel collected soil samples from test pits excavated in the former lagoon as part of the Site Inspection Prioritization (SIP). The text of the report states that no VOCs or cyanide were detected in the analyzed soil samples, but that Aroclor-1254, heptachlor, dieldrin, four semi-volatile organic compounds (SVOCs), and six metals were detected in samples collected from the test pits.
- Groundwater occurs in the overburden beneath the property at a depth of approximately 15 feet, and groundwater flow is in a southeasterly direction. A review of limited groundwater data indicates that although a release from the former gasoline UST had been documented, it did not appear that a release from the former lagoon had occurred.

Copies of the above-referenced reports are presented in Appendix B.

### **3.3 Building Department Records**

LFR reviewed numerous documents on file for the Site with the Woburn Building Department. A summary of pertinent documents is presented below:

- **November 1, 1961, Application for Permit to Build**, International Minerals and Chemical Corporation, for the construction of an 80 x 120 foot metal warehouse structure.
- **June 1, 1971, Application for Permit to Build**, Brown Terminal and Warehouse Company, for the re-construction of a 9,600-square foot warehouse structure.
- **August 2, 1972, Application for Permit to Build**, Brown Terminal and Warehouse Company, for the re-construction of a 54,000-square foot warehouse structure that was previously destroyed by fire.
- **November 14, 1974, Application for Permit to Build**, R. Brown Realty Co., for the alteration of the existing 8 x 10 foot boiler room.

- **January 21, 1987, Application for Permit to Build**, New England Resins and Pigments, for the construction of a warehouse structure on an existing concrete foundation.
- **January 22, 1987, Application for Permit to Install Wiring**, New England Resins, for electrical work in the new warehouse building.
- **January 12, 1987, Occupancy Permit**, New England Resins and Pigments.
- **November 12, 1997, Application for Permit to Perform Electrical Work**, New England Resins, for the installation of a fire alarm.
- **September 30, 2005, Application for Building Permit**, New England Resins and Pigments, for the demolition of an office building and storage building.
- **September 10, 2005, Notification Letters** to owners of abutting properties informing them of the demolition of two structures.

### 3.4 Title Records

LFR did not encounter known environmental liens, or Environmental Land Use Restrictions (ELURs) and Activity and Use Limitations (AULs) recorded for the Site. The Woburn Tax Assessor's Office records indicate that New England Resins purchased the Site on January 4, 1978 from Roger W. Brown Jr., who purchased the Site from International Minerals and Chemical Corporation in 1969. International Minerals and Chemical Corporation acquired the Site in 1950; information regarding the grantor of the property to International Minerals and Chemical Corporation was not available.

The Wilmington Tax Assessor's Office records indicate that New England Resins acquired the property in Wilmington from R. Brown Jr. in 1978. John S. Mechem and Nancy G. Trustees for the Brown Terminal Warehouse Company acquired this portion of the Site from International Minerals and Chemicals on October 1, 1968. No further ownership history information was available.

### 3.5 Local Records

LFR reviewed information regarding the Site as available at Woburn City Hall and Wilmington Town Hall. The following sections below include records LFR reviewed during our municipal research of the Site.



### **3.5.1 Local Fire Departments**

#### **3.5.1.1 Woburn Fire Department**

The Woburn Fire Department informed LFR that a permit for the storage of 4,000-gallons of flammable liquid was issued to NERP on April 8, 2005. No other documents were on file for the Site with the Woburn Fire Department. Lt. Nelson informed LFR that additional records may be archived, which were not readily available.

#### **3.5.1.2 Wilmington Fire Department**

The Wilmington Fire Department did not have any information relating to the storage or release of OHM at the Site.

### **3.5.2 Clerk's Office**

#### **3.5.2.1 Woburn City Clerk**

Personnel at the Woburn City Clerk's Office informed LFR that New England Resins and Pigments has a permit to store 4,000-gallons of flammable liquid at the Site, which is renewed annually. The latest issue date for that permit was April 8, 2005. The City Clerk has obtained a request for a 2006 renewal and is currently processing the 2006 permit.

#### **3.5.2.2 Wilmington Town Clerk**

Personnel at the Wilmington Town Clerk's Office informed LFR that they do not have any records regarding USTs, ASTs, or storage of OHM for the Wilmington portion of the Site.

### **3.5.3 Building Department**

#### **3.5.3.1 Woburn Building Department**

LFR reviewed several documents for the Woburn portion of the Site at the Woburn Building Department, as described in Section 3.3. The Woburn Building Department does not have any records regarding USTs, ASTs, or storage of OHM for the Woburn portion of the Site.

#### **3.5.3.2 Wilmington Building Department**

Personnel at the Wilmington Building Department informed LFR that they do not have any records regarding USTs, ASTs, or storage of OHM for the Wilmington portion of the Site.

### **3.5.4 Engineering Department**

#### **3.5.4.1 Woburn Engineering Department**

Personnel at the Woburn Engineering Department informed LFR that they do not have any records regarding USTs, ASTs, or storage of OHM for the Woburn portion of the Site.

#### **3.5.4.2 Wilmington Engineering Department**

Personnel at the Wilmington Engineering Department informed LFR that they do not have any records regarding USTs, ASTs, or storage of OHM for the Wilmington portion of the Site.

### **3.5.5 Health Department**

#### **3.5.5.1 Woburn Health Department**

Personnel at the Woburn Health Department informed LFR that they would not have any information within their file that the MassDEP did not have. Other than the Site formerly being listed as a LTBI, the health agent, Mr. Jack Fralick, did not have any recollection of any other records or incidents regarding USTs, ASTs, or storage of OHM for the Woburn portion of the Site.

#### **3.5.5.2 Wilmington Engineering Department**

Personnel at the Wilmington Health Department informed LFR that they do not have any records regarding USTs, ASTs, or storage of OHM for the Wilmington portion of the Site.

## **3.6 Historical Sources**

### **3.6.1 Sanborn Fire Insurance Maps**

LFR contracted Environmental Data Resources, Inc. (EDR) to conduct a Sanborn Fire Insurance Map (Sanborn Map) search for the Site. According to EDR, Sanborn Map coverage for the Site does not exist (refer to Appendix B).

### **3.6.2 Aerial Photographs**

LFR obtained 1938, 1954, 1973, and 1978 aerial photographs of the Site and vicinity from EDR. The following summarizes our review of these photographs (see Figures 5a through 5d).

- The 1938 and 1954 aerial photographs depict several structures at the Site, including one large rectangular structure with an attached smaller structure along the southern edge, three smaller structures to the south of the building, and one small structure to the north of the main building. An access road is shown to the south and west of the structures. What appears to be a small pond is depicted to the southwest of the main building. Railroad tracks are shown to the east of the Site, across from which is a large complex of inter-connected structures. Two ponds are located further east of the Site. The areas to the north, south, and west of the Site appear to be undeveloped. Farmland is depicted further north and west of the Site.
- The 1973 aerial photograph depicts a large rectangular structure which appears to be a different building than the one depicted in the 1938 and 1954 aerial photographs. A smaller square shaped structure is depicted to the north of the main building, which also appears to be a different structure than the one depicted along the northern side of the main building in the 1938 and 1954 aerial photographs. An area that appears to be used for storage of what appears to be trailers is depicted between the main and northern buildings. One of the smaller buildings located to the south of the main building has been demolished. The small pond located to the southwest of the main building appears to have been filled in. An access road is visible to the south of the buildings but does not appear to wrap around the western edge of the main building as was depicted in the previous aerial photographs. Railroad tracks are shown to the east of the Site, across from which are two tanks. To the east of the Site is a large complex of inter-connected structures. Two ponds are located to the northeast and southeast of this complex. Further to the northeast of the Site appear to be several commercial and/or industrial buildings. The northern-adjointing property appears to be occupied by wooded areas, while the western-adjointing property appears to consist of some wooded areas and some cleared areas. Industrial and/or commercial properties are depicted to the south of the Site.
- Images of the Site and surrounding areas in the 1978 aerial photographs appear similar to those depicted in the 1973 aerial photograph. However, the area surrounding the Site appears more developed, as several large buildings and complexes are now shown to the east and south of the Site. The northern-adjointing property appears to consist of wooded land; however, what appears to be an industrial complex is located further north/northwest of the Site. The western-adjointing property consists mainly of cleared land, consistent with documented historic use of this property as a landfill.

### 3.6.3 Historical Atlases/USGS Topographic Maps

LFR contracted EDR to conduct a Historical Topographic Map search for the Site. EDR provided LFR with 1950, 1965, and 1979 topographic quadrangles of Wilmington, Massachusetts. The following summarizes our review of these maps (see Appendix B).

- In the 1950 topographic map, a large rectangular structure is depicted at the Site, south of which are four smaller structures. Two small ponds are depicted to the west and southwest of the Site buildings. The Boston-Maine Railroad is depicted to the east of the Site, across from which is a large irregular-shaped structure and three smaller structures. Two ponds and wetlands are shown further east of the Site. Wetland areas are shown to the northwest and northeast of the Site.
- In the 1965 topographic map, a large irregular shaped structure is depicted at the Site, southwest of which are two smaller structures. Two small ponds are shown to the west of the Site buildings. The Boston-Maine Railroad is depicted to the east of the Site, across from which are two tanks. A large irregular-shaped structure and one smaller structure are depicted to the east. Two ponds and wetlands are shown further east of the Site. Wetland areas are shown to the northwest and northeast of the Site. Gravel pits are depicted to the southwest of the Site.
- Images of the Site and surrounding areas in the 1979 topographic map are similar to those depicted in the 1965 topographic map except that there are no small ponds depicted to the west of the Site buildings.

#### **3.6.4 City Directories**

According to the Woburn Public Library, Woburn city directories are only available for the last fifteen years. Since NERP has occupied the Site since the early 1970s, these directories were not reviewed.

The Wilmington Public Library informed LFR that they do not have historical city directories.

#### **3.6.5 Additional Historical Sources**

LFR did not review additional historical sources during this assessment.

#### **3.6.6 Summary of Historical Information**

Historical records indicate that the Site has been developed since at least the late 1930s. International Mineral and Chemicals occupied the Site between at least the early 1950s and the late 1960s. During the 1970s, the Site was used as warehouse space for a variety of companies including the Brown Terminal and Warehouse Company, a lumber company, a bean bag manufacturer, and New England Resins and Pigments. The Site has been entirely occupied by New England Resins and Pigments since the late 1970s, who uses the Site for the distribution of various resins and pigments and for the storage and retail sale of unused bulk packaging.

The area surrounding the Site has historically been used for heavy industrial use including chemical companies, tanneries, and glue factories. Several of the surrounding properties have documented contamination, as described in Section 5.0.

## **4.0 ENVIRONMENTAL SETTING**

### **4.1 Topography**

According to the USGS 1987 Reading, Massachusetts topographic quadrangle, the Site is located at an elevation of approximately 90 feet above mean sea level based on the National Geodetic Vertical Datum of 1929. A hill with bedrock outcrops is located along the southwest corner of the Site. Topography of the Site and surrounding area is hilly.

### **4.2 Hydrology**

#### **4.2.1 Surface Water**

LFR did not observe any surface water bodies at the Site. According to previous reports, a drainage ditch that flows in a southerly direction is located along the eastern portion of the Site. LFR did not observe any water within the low lying areas adjacent to the railroad tracks. Two unnamed ponds are located approximately 1,000 feet to the east of the Site. Halls Brook is located approximately 3,000 feet south of the Site. Storm water runoff generated along the western portion of the Site flows to catch basins. LFR could not confirm the discharge location of these catch basins. It is possible that they discharge to the drainage ditch located along the eastern edge of the Site. Surface water generated along the eastern portion of the Site is anticipated to flow toward the low lying area located to the east of the Site building. LFR could not confirm the discharge location of these catch basins. It is possible that they discharge to the drainage ditch located along the eastern edge of the Site.

#### **4.2.2 Wetlands**

LFR did not observe wetlands or wetlands-type vegetation at the Site.

#### **4.2.3 Hydrogeology**

Based on topographic gradient of the Site vicinity and review of previous subsurface investigations at the Site and surrounding area, groundwater is anticipated to flow in a southeasterly direction. Depth to groundwater at the Site has been documented to be between 0.94 and 4.91 feet below grade.

Based on a review of the MassGIS 21E Priority Resource Map (accessed online), the Site is not located over or within 500 feet of a potentially productive aquifer, a sole source aquifer, an Interim Wellhead Protection Area, an approved Zone II groundwater supply area, or other feature triggering a GW-1 classification. However, public water supply areas are depicted to the north and west of the Site. Since the groundwater beneath the Site is within 30 feet of an existing building at a depth less than 15 feet and all groundwater in Massachusetts is classified as GW-3, groundwater at the Site is classified as GW-2 and GW-3.

## 5.0 RECORDS REVIEW

LFR contracted EDR, a database search company, to conduct a search of federal and state regulatory databases to identify recorded concerns for the Site and surrounding properties. A copy of this report is provided in Appendix A. The following table summarizes the search results.

Database Search Results							
Database	Search Radius	Site	Adjacent	0 - 1/8 mile	1/8 - 1/4 mile	1/4 - 1/2 mile	1/2 - 1 mile
NPL	1-mile	No	1	1	0	0	0
CERCLIS	1/2-mile	No <sup>1</sup>	1	1	0	1	-
RCRA COR	1-mile	No	1	0	0	0	0
RCRA TSD	1/2-mile	No	0	0	0	0	-
RCRA Generators	Site & Adjacent	No	3	-	-	-	-
ERNS	Site only	No	-	-	-	-	-
FINDS	Site only	No	-	-	-	-	-
SHWS	1-mile	Yes	5	5	3	11	46
USTs	Site & Adjacent	No	0	-	-	-	-
LUST	1/2-mile	NA	NA	NA	NA	NA	NA
SWL	1/2-mile	No	1	0	0	0	-
Spills	1/4 -mile	No	1	1	3	-	-

1. The Site is listed as a CERCLIS-NFRAP site, indicating it was removed from the CERCLIS list.

NA = The MassDEP does not maintain a LUST list.

Note: The database search plotted the Woburn Landfill as being between 1/4 and 1/2-mile from the Site; however, the landfill abuts the Site to the west.



## 5.1 Federal Records

### 5.1.1 NPL sites

The search identified one National Priority List (NPL) site within one mile of the Site, Industri-Plex. Portions of the Industri-Plex Superfund Site adjoin the Site to the south and east. Additionally, the database identified one proposed NPL site within one-mile of the Site, the Olin Corporation. It should be noted that the Olin Corporation was listed on the Final NPL in February 2006; the database report did not reflect this update.

The MassDEP's Northeast Regional Office (NERO) Service Center informed LFR that all files for NPL sites are under the control of the U.S. EPA and are not available for review at MassDEP. LFR researched information available on the U.S. EPA's Superfund Website and information encountered in reports reviewed for surrounding properties, for each of the NPL sites, a summary of which is provided below.

#### Industri-Plex, Commerce and Atlantic, EPA ID# MAD076580950

This NPL site adjoins the Site to the south and east, as indicated above. The U.S. EPA NPL Narrative for this site reads, "The Industri-Plex site covers 250 acres in North Woburn, Massachusetts. Between about 1953 and 1981, Merrimac Chemical Co. and its successor, Monsanto Co., manufactured insecticides, explosives, acids, and other chemicals at the site. In the late 1960s, much of the site was acquired by the Mark Phillip Trust for industrial development. Excavation in the 1970s uncovered and mixed 130 years' accumulation of industrial by-products and wastes. Many of the pits, piles, and lagoons are continuously leaching toxic metals into the environment. As excavation progressed, pockets of buried animal hides from glue manufacturing were exposed to the air, causing odors. In June 1979, the Army Corps of Engineers and the State issued a cease and desist order to the Trustee relative to the placing of dredged or fill material into the wetlands on the site." This facility was listed on the final NPL list in September 1983.

By early 1998, approximately 110 acres of the site are covered with a protective cap to prevent human exposures to soils contaminated with metals (e.g. arsenic, lead and chromium). Portions of the site have been redeveloped for a multi-modal Regional Transportation Center, Interstate-93 Interchange, public road extension, Target Stores, and Metro-North Office Park including Raytheon and Residence Inn - Marriott."

Groundwater at the site is contaminated with several VOCs, including benzene and toluene, and heavy metals, including arsenic. Soil is contaminated with heavy metals, including arsenic, chromium, and lead. Sediment and surface water have also been impacted through migration of groundwater. According to the January 2006 Record Of Decision (ROD) for this site (U.S. EPA, 2006) groundwater impacts will be minimized through management of migration and institutional controls; in soil by institutional controls and maintenance of capping; in sediment by removal, off-site disposal,

institutional controls and providing an alternative habitat; and in surface water by management of migration and providing and alternative habitat.

Groundwater has been documented to flow in a south/southeasterly direction. Since this NPL site is located to the east and south (hydraulically cross/downgradient) of the subject Site and groundwater impacts are under institutional control, this NPL site is unlikely to pose a threat of release of OHM to the Site.

#### Olin Corporation

This NPL site adjoins the Site to the northwest. The U.S. EPA NPL Narrative for this site reads, "Olin Chemical Facility encompasses a 53-acre property located at 51 Eames Street in Wilmington, Massachusetts. The inactive facility is completely fenced and is bounded on the north by Eames Street, on the east by Boston and Maine railroad tracks, on the south by the Woburn/Wilmington town line, and on the west by an inactive Boston and Maine railroad spur. Surrounding the property to the north, east and west are heavy and light industrial facilities, and to the south is a former municipal landfill for the City of Woburn.

Olin Chemical produced chemical blowing agents, stabilizers, antioxidants and other specialty chemicals for the rubber and plastics industry at the facility. The facility closed in 1986, but the property is still owned by Olin Corporation. Historical wastewater disposal practices were a major source of the contamination associated with the Olin Chemical facility. Prior to 1970, all liquid wastes were discharged directly into several unlined pits and ponds in the central portion of the property, as well as into a man-made excavation called Lake Poly Liquid Waste Disposal Area (Lake Poly). In 1970, Stepan Chemical installed an acid treatment and neutralization system and new lined lagoons to replace the unlined pits and ponds. Treated wastes were released into the lagoons where calcium sulfate sludge settled out. The lagoons were periodically dredged and the sludge was deposited in a landfill in the southwest corner of the property (now known as the Calcium Sulfate Landfill). Residual liquid wastes were released to an unlined on-property ditch system until 1972. On-site waste disposal practices have resulted in subsurface contamination both on and off the Olin Chemical property and the closure of municipal drinking water supply wells. Principal contaminants associated with the site groundwater include: ammonia, chloride, sodium, sulfate, chromium and N-nitrosodimethylamine.

While extensive work has been completed by Olin Corporation to control and contain wastes onsite, including construction of a slurry wall around the former waste pits, excavation of Lake Poly and other hot spots, operation of a pump and treat system for Plant B, and capping the Calcium Sulfate Landfill, the release of wastes from onsite sources continues. In accordance with the State's program requirements, Olin Corporation has investigated the site and performed response actions onsite, but no efforts have been initiated to address the contaminant plume, which extends 0.75 miles west from the site."



According to the Woburn Health Department, there is an exclusive aquifer that splits the groundwater regime on the Olin property into separate north and south flow directions. Based on its active status on the NPL and the potential for groundwater beneath this property to flow onto the Site, this NPL site may pose a threat of release of OHM to the Site.

### **5.1.2 CERCLIS sites**

The database search identified three Comprehensive Environmental Response Compensation, and Liability Information System (CERCLIS) sites within ½-mile of the Site. However, based on a conversation with MassDEP, one of these plotted CERCLIS facilities is an error. Specifically, Circle Finishing is listed within the database as being located within 1/8- to ¼-mile of the Site. However, the address for this facility, as listed within the database search and MassDEP records, is Traffic Circle (Route 1) within the town of Newbury, Massachusetts. As such, records for this facility were not reviewed during this assessment. The remaining two CERCLIS sites include Industri-Plex and Ritter Trucking Company. Industri-Plex site is described in detail Section 5.1.1. According to Mr. Jack Fralick of the Woburn Board of Health, there is an exclusive aquifer that separates the northern part of Woburn from the southern part of Wilmington, and as a result, groundwater located to the south of this aquifer is expected to flow south, while groundwater located to the north of the aquifer is expected to flow north. LFR did not review files for Ritter Trucking Company as it is located in an inferred separate hydraulic regime than the Site.

It should be noted that the subject Site was identified by the database search as a CERCLIS-NFRAP site, indicating that the Site has been removed from the inventory of CERCLIS sites and that the U.S. EPA has determined no further steps will be taken to list the site on the National Priorities List. The Site was listed on the CERCLIS list in the early 1980s. Information for subsurface investigations conducted at the Site is described in Section 3.2.

### **5.1.3 RCRA CORRACTS facilities**

The search identified two RCRA Corrective Action (CORRACTS) facilities within one mile of the Site. Circle Finishing is one of these facilities. As discussed in Section 5.1.2, Circle Finishing has been miss-plotted by EDR. As such, the facility has not been investigated during this Study. The remaining CORRACTS facility as listed by the database search is Olin Corporation, which is described in Section 5.1.1.

### **5.1.4 RCRA TSD facilities**

The search did not identify any RCRA Treatment, Storage, or Disposal (TSD) facilities within ½-mile of the Site.

### 5.1.5 RCRA Generators

The search did not identify any RCRA generators at or adjoining the Site.

### 5.1.6 ERNS Site

The search did not identify the Site as an Emergency Response Notification System (ERNS) site.

### 5.1.7 FINDS Site

The search did not identify the Site as a FINDS facility.

## 5.2 State Records

### 5.2.1 State Hazardous Waste Sites (SHWS)

The search identified sixty-five (65) properties as SHWS sites within one mile of the Site, including the Site itself. Given the large amount of SHWS' within close proximity to the subject Site, LFR focused on SHWS' that are adjacent to within the immediate vicinity of the Site. LFR reviewed pertinent documentation for ten (10) SHWS sites at MassDEP's NERO on May 10, 2006, information for which is summarized below.

#### New England Resins and Pigments, 316 New Boston Street, RTN 3-1264

This is the subject Site. Information for the Site is described in Section 3.2. The Site was identified by the database search as a SHWS and a CERCLIS NFRAP site. The Site was listed as a "Location to be Investigated" (LTBI) (Site No. 3-1264) by the MassDEP in January 1987 based on the Site's inclusion on the CERCLIS list. Several environmental assessments have been conducted for the Site, including a 1980 preliminary site assessment, 1986 site assessment, a 1991 subsurface soil investigation, a 1991 additional sampling and analysis investigation, a 1994 environmental site evaluation update, and various site inspections conducted by the U.S. EPA during the 1980s and 1990s. Low levels of VOCs have been detected within groundwater beneath the Site but at levels below applicable reportable concentrations. Total petroleum hydrocarbons (TPH) and VOCs were detected in soils collected from the Site in 1991 at concentrations above applicable reportable concentrations. Toluene has been consistently detected within surface water samples collected from the drainage ditch located along the eastern portion of the Site. Upstream surface water samples contained higher concentrations than downstream samples, indicating an off-site source. Soil samples that were collected by the U.S. EPA in 1997 within the former lagoon area contained concentrations of numerous constituents including metals, VOCs, semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs), but at concentrations below applicable reportable concentrations.

A Licensed Site Professional No Further Action required (LSPNFA) opinion was reportedly submitted for the Site on October 28, 1994, indicating that no further remedial action was necessary at the Site. Investigations conducted at the Site by the Agency U.S. EPA in the late 1990s resulted in the removal of the Site from the CERCLIS list in 2002.

Dundee Park Southern Portion, New Boston Street, RTN 3-0474

According to the database report, this SHWS is located approximately 460 feet east/northeast of the Site. Documentation reviewed at the MassDEP indicates that this property is located within the northeast corner of Woburn. Two small ponds are located on the property. Elevated levels of heavy metals and VOCs were present within soil, groundwater, and surface water samples in the early 1980s. Groundwater flow was documented to be toward the east/southeast and the southernmost of the two on-site ponds. Regional groundwater flow was anticipated to be to the south. This SHWS is listed within the MassDEP database as "adequately regulated" indicating that response actions at this SHWS are deemed adequately regulated under another DEP program or by another government agency. Based on its regulatory status and inferred downgradient hydraulic position, this SHWS does not likely pose a material threat of release of OHM to the Site.

Industri-Plex, Commerce and Atlantic, RTN 3-1731

This site is also an NPL site. As such, files are not available for review at MassDEP. Information for this site is described in Section 5.1.1.

Fuel Transfer and Storage, 324 New Boston Street, RTN 3-4547 and J Amicone Co. Inc., 324 New Boston Street, RTN 3-12666

These two SHWS sites are located to the east of the Site, across the railroad tracks along the western side of New Boston Street. According to documentation reviewed at NERO, a combined Release Notification Form and Response Action Outcome Statement was submitted to MassDEP in July 1995. Petroleum contamination of groundwater beneath this facility was discovered in July 1993. Groundwater was documented to flow in a southeastern direction, although it was noted that groundwater flow may parallel the flow of a drainage ditch that runs in a southerly direction along the western boundary of the property. A Release Abatement Measure consisting of the excavation of 35 cubic yards of petroleum-contaminated soil took place in March 1994 to address contamination associated with RTN 3-4547. A Class A-2 RAO was submitted for RTN 3-4547 to MassDEP in July 1995, although copy of the RAO was not within the file at the time of LFR's file review.

Groundwater samples that were collected between June 1994 and January 1995 contained concentrations of mercury and chlorinated solvents that exceeded applicable reportable concentrations. A source of the chlorinated VOCs had not been confirmed, although it was suggested that it resulted from the historic storage of drums and tanks on the property by E.C. Whitney & Son, Inc. GZA submitted a Release Notification Form along with a Method 2 public health and environmental risk characterization (indicating that a condition of No Significant Risk had been achieved) and a Class B-1 RAO Statement for RTN 3-12666 in July 1995. An audit was conducted on the Class B-1 RAO by MassDEP in December 1996, which identified two deficiencies in the RAO. These deficiencies were satisfactorily addressed in a subsequent Notice of Audit Findings letter by GZA in January 1997.

Based on their closed regulatory status and inferred cross and/or downgradient hydraulic position, the SHWS associated with RTNs 3-4547 and 3-12666 is not expected to pose a material threat of release of OHM to the Site.

Undercoverwear, Lot 2A, 1 Presidential Drive, RTN 3-1890

This SHWS is located approximately 600 feet northeast of the Site. According to documentation reviewed at NERO, a release of hydraulic fluid to soil occurred at this facility sometime during the 1980s. A release of hydraulic fluid to groundwater was not apparent. An RAO has not yet been submitted for this SHWS. According to the MassDEP's website, a Phase II report was the last submittal for this facility. A Phase II report was not located within the file for this SHWS at the time of LFR's file review. Groundwater flow was not documented in the reviewed documentation for this facility; however, based on its location next to a small, unnamed pond and reviewed documentation for surrounding properties, LFR infers that groundwater flows in a southern direction toward the unnamed pond and away from the Site. Based on its inferred cross and/or downgradient hydraulic position and apparent impact to soil only, this SHWS is not expected to pose a material threat of release of OHM to the Site.

891 Woburn Street, RTN 3-14340

According to the database report, this SHWS is located approximately 700 feet north/northeast of the Site. A Downgradient Property Status (DPS) Opinion was submitted for this property in October 1997 by GZA Geoenvironmental (GZA). The DPS concluded that VOCs and other constituents that were detected within groundwater along the northern (upgradient) border of the property was from an off-site source, potentially the Olin Corporation or E.C. Whitney & Son, Inc., each of which is discussed in this section. Since the source of contamination at this property originates off-site, this SHWS is not expected to pose a material threat of release of OHM to the Site.

Stafford Manufacturing Company, New Boston Street, RTN 3-1092

According to the documentation reviewed NERO, this site lies within the boundaries of the Industri-Plex NPL site, which is described in Section 5.1.1.

E.C. Whitney & Son, Inc., 888 Woburn Street, RTN 3-12680 and 3-1787

According to the database report, this SHWS is located approximately 1,000 feet north of the Site. According to documentation reviewed at NERO, this site was listed on the U.S. EPA CERCLIS list and was subsequently listed as a Location to Be Investigated (LTBI) based on a preliminary site assessment conducted by the U.S. EPA. Operations conducted at the site resulted in a release of hazardous substances to soil and groundwater, including but not limited to chromium, lead, methyl ethyl ketone, acetone, ethylbenzene, styrene, toluene, and polychlorinated biphenyls (PCBs). The site is currently undergoing a Phase IV remedy consisting of the excavation and removal of buried wastes and contaminated soils, extraction and treatment of groundwater, controlling of off-gases generated during groundwater treatment, and continuous monitoring of soil and groundwater conditions. Groundwater flow was not documented in reviewed documentation for this property; however, based on reviewed documentation for surrounding properties, LFR infers a south/southeastern groundwater flow direction. Based on the active monitoring and remedial activities being conducted at the property and its inferred crossgradient hydraulic position, this SHWS is not expected to pose a material threat of release of OHM to the Site.

It should be noted that numerous other SHWS sites are located within one mile of the Site. Due to time constraints, files were not reviewed for fifty-five (55) SHWS sites during this assessment. However, given their distance and inferred cross- and/or downgradient hydraulic position, it is unlikely that the remaining SHWS sites pose a material threat of release of OHM to the Site.

#### **5.2.2 Registered USTs**

The search did not identify the Site or any adjoining properties as a registered UST facility.

#### **5.2.3 Leaking LUSTs**

The MassDEP does not maintain a separate listing of LUST sites. In Massachusetts, the State-listed disposal sites and/or Spill databases (see Sections 5.2.1 and 5.2.5, respectively) include information regarding LUST sites.

#### **5.2.4 SWF**

The search identified one solid waste facility (SWF) within ½-mile of the Site. The Woburn Landfill adjoins the Site to the west. LFR did not review files for the landfill. However, Mr. Jack Fralick with the Woburn Health Department informed LFR that capping of the landfill was completed in 1998 and that the boundaries of the landfill have been clearly delineated and are free of contamination. Groundwater beneath the landfill is documented to flow to the south/southeast. Based on this information, the landfill is not expected to pose a material threat of release of OHM to the Site.\

### 5.2.5 Spills

The search identified four (4) spill sites within ¼-mile of the Site. Of these, LFR determined that based on their inferred downgradient hydraulic position, two are not likely to pose a material threat of release of OHM to the Site. Information for the remaining two spill sites is presented below:

J. Amicone Co. Inc., 324 New Boston Street, RTN 3-12666

Information for this SHWS is presented in Section 5.2.1.

891 Woburn Street, RTN 3-14340

Information for this SHWS is presented in Section 5.2.1.

### 5.3 Non-Geocoded Sites

The non-geocoded section of the search includes sites that could not be properly located due to inadequate information provided by the reporting agency. LFR did not identify the Site or any abutting/adjoining properties on the non-geocoded list.

## 6.0 MOLD EVALUATION

### 6.1 Interview of Site Contact

During the Site visit on May 10, 2006, Ms. Andrea L. Blackburn, Project Scientist of LFR, interviewed Mr. Paul O'Connor, President of NER, regarding the current or historic presence of mold growth or property characteristics conducive to mold growth as specified in the Citizens Phase I ESA Scope of Work. The following is the question and answer summary of the interview.

#### 6.1.1 Question/Answer #1

Is, or has there been, any visual mold growth or moldy odors identified within the Site Building?

No

#### 6.1.2 Question/Answer #2

Is, or has there been, any moisture, condensation or high humidity problems within the Site building?

No



**6.1.3 Question/Answer #3**

Have any areas of the Site building been impacted by a flood, plumbing/sewer leak, roof/window leak, groundwater intrusion or discharge of a sprinkler system?

Mr. O'Connor stated that a minor roof leak was discovered and repaired in 2004. Mr. O'Connor also stated that the leak only impacted the exterior portion of the Site building, as evidenced by minor staining along the exterior walls of the building. No water damage was discovered within the interior portions of the Site building. LFR did not observe any staining within the interior or exterior portions of the Site building at the time of the Site reconnaissance.

**6.1.4 Question/Answer #4**

Is a sump pump located within the basement of the Site building?

No basement

**6.1.5 Question/Answer #5**

Have any occupants of the Site building complained as to water intrusion or moldy odors within their tenant spaces or reported any adverse health problems that have been alleged to be related to the Site building?

No

**6.1.6 Question/Answer #6**

Does the HVAC system have any drip pans or other open discharge of condensate water, steam or other moisture?

Mr. O'Connor did not have any information regarding the HVAC systems.

**6.1.7 Question/Answer #7**

Has a state or local health agency issued any notices of violation to the Site building as to indoor air quality, odors, moisture or mold growth?

No

**6.1.8 Question/Answer #8**

Have any moisture surveys, indoor air quality reports or mold surveys been conducted for the Site building?

No

**6.1.9 Question/Answer #9**

Has an insurance claim ever been filed for water or mold-related damage to the Site building?

No

**6.2 Visual Assessment**

During the Site visit on May 10, 2006, Ms. Blackburn conducted a limited visual and olfactory assessment of readily accessible areas of the Site building for the presence of visible mold growth as specified in the Citizens Phase I Scope of Work. All readily accessible common areas and rooms were inspected. No basements or attics were present at the Site.

**6.2.1 Mold Growth**

LFR did not identify evidence of suspect mold growth within the Site building.

**6.2.2 Mold Odors**

LFR did not identify moldy odors within the Site building.

**6.2.3 Roof Ponding**

The roof was not accessible to LFR at the time of the Site reconnaissance.

**6.2.4 Roof Patching**

The roof was not accessible to LFR at the time of the Site reconnaissance.

**6.2.5 Water Staining, Standing Water, or Discoloration of Building Materials**

LFR observed a small area of standing water near a loading bay door within the warehouse portion of the Site building. It should be noted that it was raining at the time of LFR's site visit. LFR did not identify any other areas of water staining, standing water, or discoloration of building materials.



### **6.2.6 Flooding, Leaking, Groundwater Intrusion, or Sprinkler System Discharge**

LFR observed a small area of standing water near a loading bay door within the warehouse portion of the Site building. It should be noted that it was raining at the time of LFR's site visit. LFR did not observe any other evidence of possible flooding, groundwater intrusion or sprinkler system discharge.

### **6.2.7 High Humidity**

LFR did not observe any areas of high humidity within the Site building at the time of the Site visit.

### **6.2.8 Heat Exchangers/Cooling Towers**

No heat exchangers or cooling towers are utilized on-Site.

## **7.0 SITE RECONNAISSANCE**

Ms. Blackburn visited the Site on May 10, 2006 and was escorted through the Site building by Mr. Paul O'Connor. The weather at the time of LFR's investigation was rainy with a temperature of approximately 45 degrees Fahrenheit.

### **7.1 Underground Storage Tanks (USTs)**

LFR did not observe any visual evidence of current USTs (such as fill or vent pipes) at the Site at the time of the Site reconnaissance. However, reviewed documentation for the Site indicates the former presence of a 1,000-gallon gasoline tank located along the southern side of the former repair shop. This UST was reportedly removed in 1983. LFR did not encounter documentation regarding the UST removal. The former presence of USTs at the Site does not likely pose a threat of release of OHM to the Site, as previous subsurface investigations have not revealed evidence of significant contamination resulting from the former USTs.

### **7.2 Aboveground Storage Tanks (ASTs)**

LFR observed an AST surrounded by a secondary containment wall within the southwestern corner of the Site building that is used for the storage of epoxy resin. This AST was observed to be in good condition at the time of the Site visit. Mr. O'Connor did not know the total capacity of the AST. However, according to Lt. Nelson of the Woburn Fire Department, a permit was issued to the Site on April 8, 2005 for the storage of 4,000-gallons of flammable liquids. Previous reports documented the resin AST as having a capacity of 5,000-gallons. Mr. Connor stated that epoxy resin stored within the AST in non-hazardous.

LFR reviewed Material Safety Data Sheet (MSDS) for the epoxy resin, labeled as EPON™ Resin 828, which indicated that the material has a low acute toxicity and is a mild eye, skin, and respiratory irritant. The material will not burn unless it is preheated.

LFR also observed one, 500-gallon propane AST enclosed within fencing located on asphalt paving to the northwest of the heated portion of the Site building. No other ASTs were observed at the time of the Site visit.

Reviewed documentation for the Site indicates the former presence of two (2) 275-gallon fuel oil ASTs located in the basement of the former office structure, which were reportedly removed in 2005. In addition, two (2) 250-gallon ASTs of unknown type were formerly located along the southern portion of the property, and a sulfuric acid AST of unknown capacity was formerly located to the southwest of the Site building. LFR did not encounter documentation regarding any of the afore-mentioned ASTs.

### **7.3 Hazardous Substances**

LFR observed numerous labeled 55-gallon drums, 250-gallon storage totes, and 5-gallon pails within the non-heated portions of the warehouse that contained various flammable epoxy resins and corrosive materials, in addition to numerous 40 pound bags of mineral fillers, curing agents, and other types of pigments. LFR also observed similar containers within the heated portion of the warehouse containing various corrosive materials and non-flammable epoxy resins. The majority of observed hazardous substances were stored atop of wooden pallets or other types of shelving units. Several cracks were observed along the concrete floor within warehouse. LFR observed minor staining along the concrete flooring within the warehouse portion of the Site building indicative of tire tracks from the use of forklifts. In addition, LFR observed minor staining indicative of red powder pigment located within the area of pigment stored within paper bags in the warehouse portion of the Site building. All containers of hazardous substances were observed to be in excellent condition with no evidence of rupture or leakage. LFR also observed a large AST containing epoxy resin. According to Mr. O'Connor, the epoxy resin stored within the AST is non-hazardous. LFR also observed approximately fifteen (15) 35-gallon canisters of propane used to power the forklifts within the northwest portion of the warehouse.

### **7.4 Hazardous Waste**

No hazardous waste is currently generated or stored at the Site.

## **7.5 Polychlorinated Biphenyls**

LFR identified two pole-mounted electrical transformers on the northern side of the Site building. LFR did not observe evidence of leaking from these transformers. LFR could not determine if these transformers contain PCBs. Mr. O'Connor did not have any information regarding these transformers.

LFR did not observe additional suspect PCB containing equipment such as hydraulic lifts, elevators or conveyor systems.

## **7.6 Solid Waste Disposal**

LFR observed one solid waste dumpster near the northwestern corner of the Site building. No evidence of staining was observed within the vicinity of the dumpster. LFR did not observe evidence of illegal dumping of solid waste or construction debris at the time of our inspection.

## **7.7 Stained Surfaces and Distressed Vegetation**

LFR observed minor staining along the concrete flooring within the warehouse portion of the Site building indicative of tire tracks from the use of forklifts. In addition, LFR observed minor staining indicative of red powder pigment located within the area of pigment stored within paper bags in the warehouse portion of the Site building. LFR did not observe any other stained surfaces at the Site during our reconnaissance. LFR did not identify visual evidence of stained or stressed vegetation at the Site.

## **7.8 Underground Structures & Sanitary Wastewater Disposal**

LFR identified two capped floor drains located in the warehouse portion of the Site building. According to Mr. O'Connor, these floor drains likely discharge to the storm water system; however, he was unable to confirm this information. LFR did not observe staining in the vicinity of either of the floor drains at the time of our Site inspection.

LFR observed several catch basins within the paved parking area of the western portion of the Site exterior. Staining was not observed within the vicinity of any of the catch basins. According to Mr. O'Connor, the floor drains within the Site building likely discharge to the catch basins, which he believed to be connected to the municipal storm water system; however, Mr. O'Connor could not confirm this information. The discharge point of the catch basins is unknown.

LFR did not observe any sumps, drinking water wells, injection wells, drywells, septic tanks, leach fields, leaching basins, sinkholes, hydraulic lifts, or pipelines at the Site.

## **7.9 Additional Issues of Environmental Concern**

### **7.9.1 Asbestos-Containing Material (ACM)**

The main portion of the Site building was constructed in 1971; two additions were added in the early and mid-1980s. LFR did not observe any damaged, friable suspect ACM at the time of the Site visit.

### **7.9.2 Lead Based Paint (LBP)**

Since the Site building is not used for residential purposes, LFR did not determine the condition of any suspect LBP.

## **8.0 LIMITATIONS & CONDITIONS**

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

The findings presented in this report apply solely to site conditions existing at the time when LFR's assessment was performed. It must be recognized, however, that an environmental site assessment is intended for the purpose of determining the potential for contamination through limited research and investigative activities and in no way represents a conclusive or complete site characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in environmental site assessment conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

## 9.0 REFERENCES

### 1. Persons/Offices Contacted Regarding the Site:

#### Site Contacts:

- Mr. Paul O'Connor, President of New England Resins and Pigments, the Site Contact.

#### Woburn, Massachusetts

- Fire Department, Fire Prevention Office
- Tax Assessor's Office
- City Clerk's Office
- Building Department
- Engineering Department
- Health Department
- Department of Public Works
- Public Library

#### Wilmington, Massachusetts

- Fire Department, Fire Prevention Office
- Tax Assessor's Office
- Town Clerk's Office
- Building Department
- Engineering Department
- Health Department
- Department of Public Works
- Public Library

#### Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office (NERO)

- File Review conducted on May 10, 2006
- MassGIS 21E Priority Resource Map accessed online at <http://www.mass.gov/mgis/mapping.htm>.

#### United States Protection Agency (U.S.EPA)

- January 2006 Record of Decision and Fact Sheets for the Industri-Plex National Priority List (NPL) site, accessed online at <http://oaspub.epa.gov/oerrpage/basicqry>.
- Fact Sheet for the Olin Chemical NPL site [http://yosemite.epa.gov/r1/npl\\_pad.nsf/8b160ae5c647980585256bba0066f907/1927672eca2d788b852571060051d142!OpenDocument](http://yosemite.epa.gov/r1/npl_pad.nsf/8b160ae5c647980585256bba0066f907/1927672eca2d788b852571060051d142!OpenDocument).

## **2. Reports, Plans and Other Documents Reviewed:**

### **USGS:**

- Reading, Massachusetts 7.5 Minute Series topographic quadrangle dated 1987.

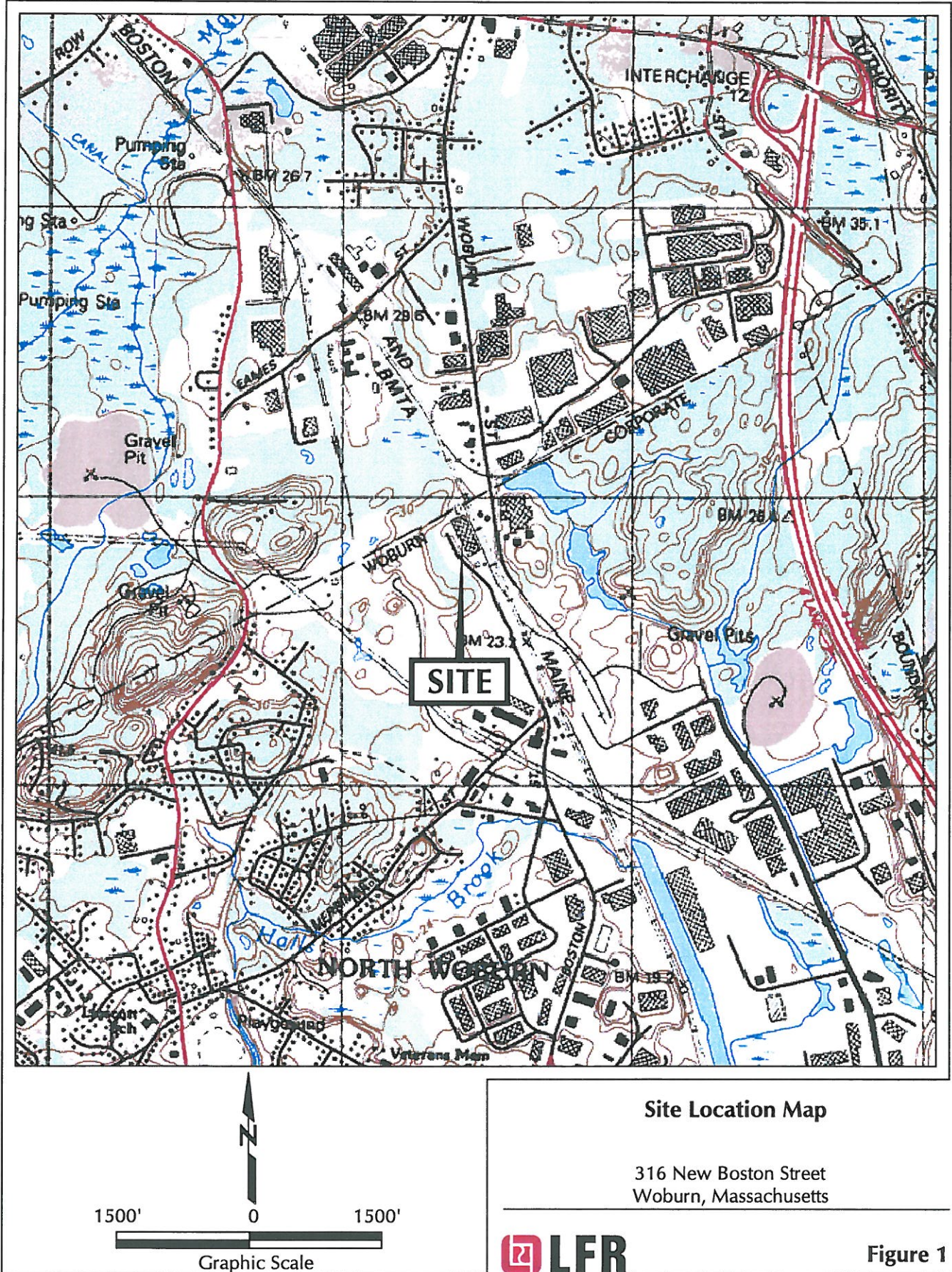
### **Environmental Data Resources (EDR):**

- EDR Radius Map Report dated May 3, 2006.
- Aerial photographs dated 1938, 1954, 1973, and 1978.
- Wilmington, Massachusetts, 7.5 Minute Series topographic quadrangles dated 1950, 1965, and 1979.
- Sanborn Fire Insurance Rate Map No Coverage Letter, dated May 2, 2006.

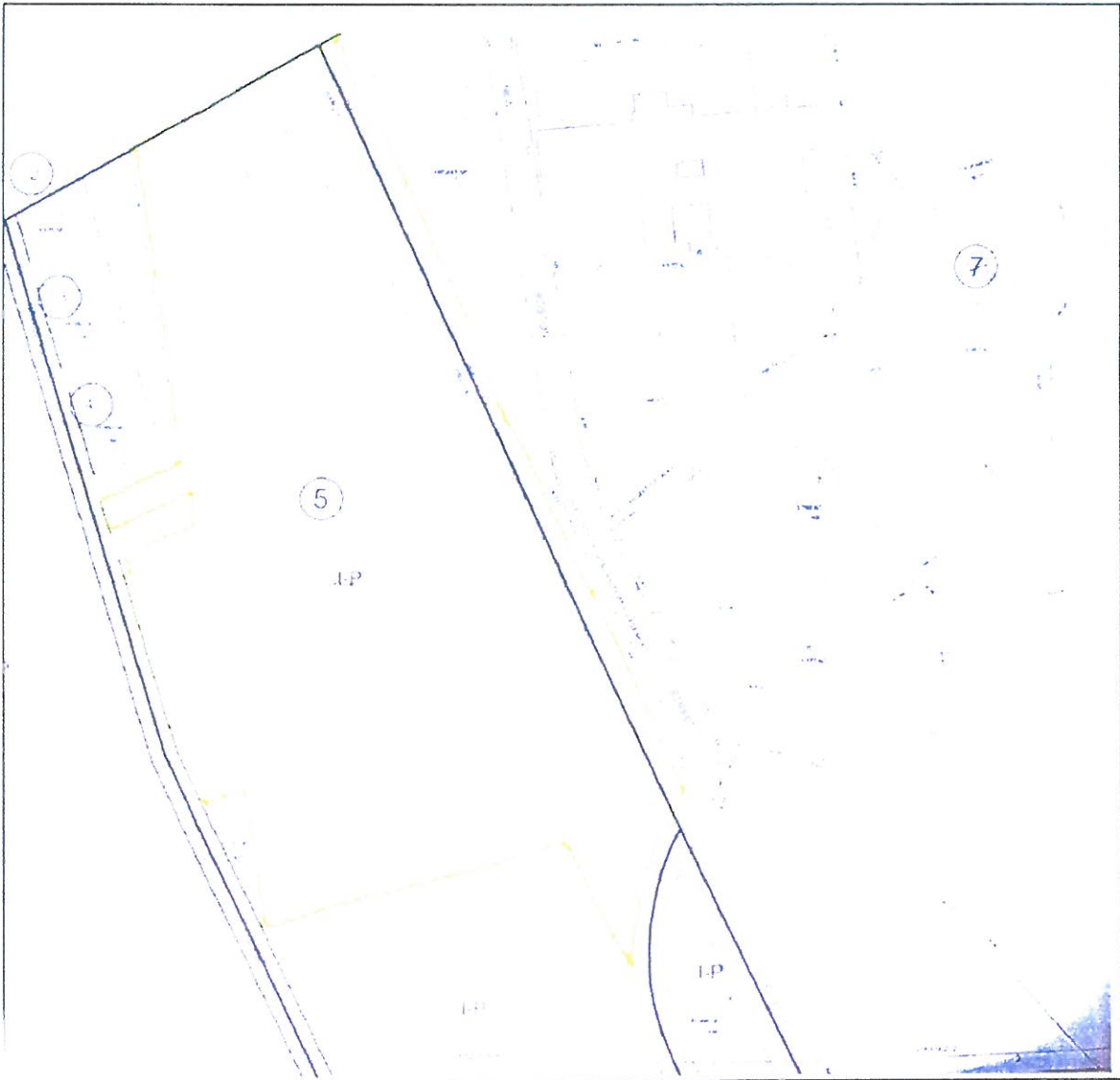


## FIGURES









### WOBURN TAX ASSESSOR'S MAP

316 New Boston Street  
Woburn, Massachusetts



Figure 2a



015 H:\ALB\010-13769-1A.dwg May 22, 2006 9:55am

# WILMINGTON TAX ASSESSOR'S MAP

316 New Boston Street  
Woburn, Massachusetts



Figure 2b

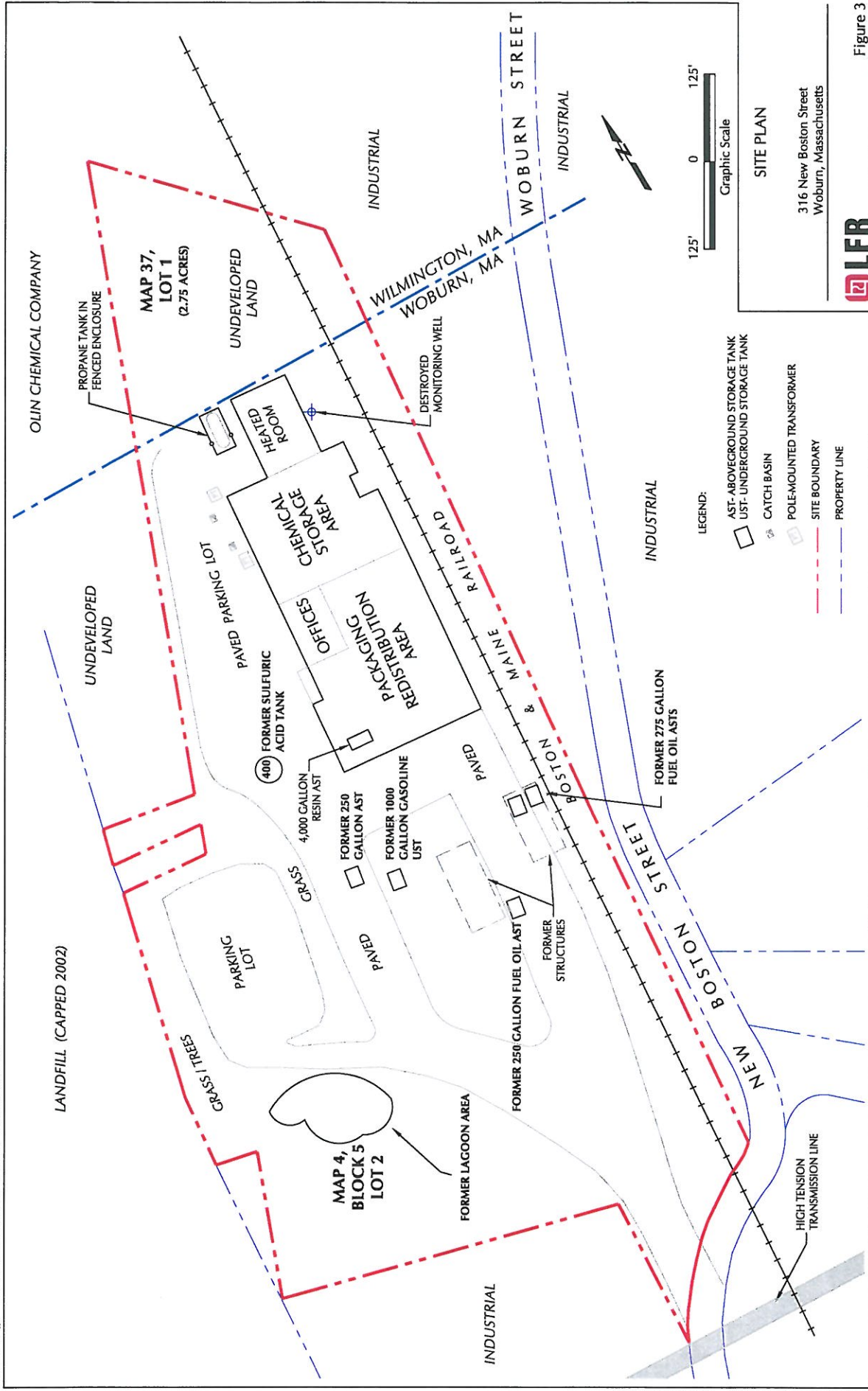
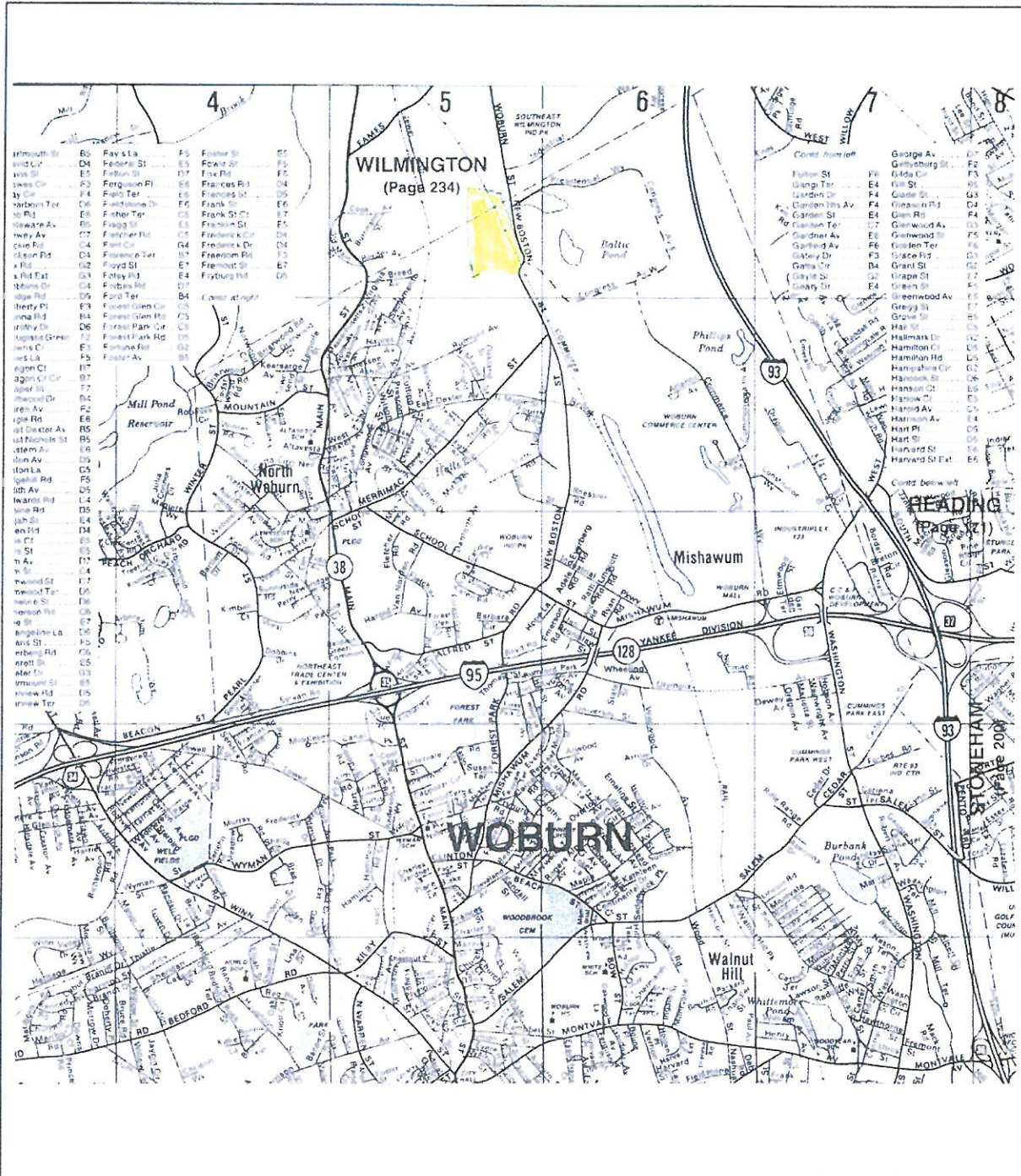


Figure 3





015 H:\ALB\010-13769-1A.dwg May 22, 2006 9:10am

Scale: As Noted

## Street Map

316 New Boston Street  
Woburn, Massachusetts



Figure 4



**Figures 5A-D**

**Aerial Photographs**





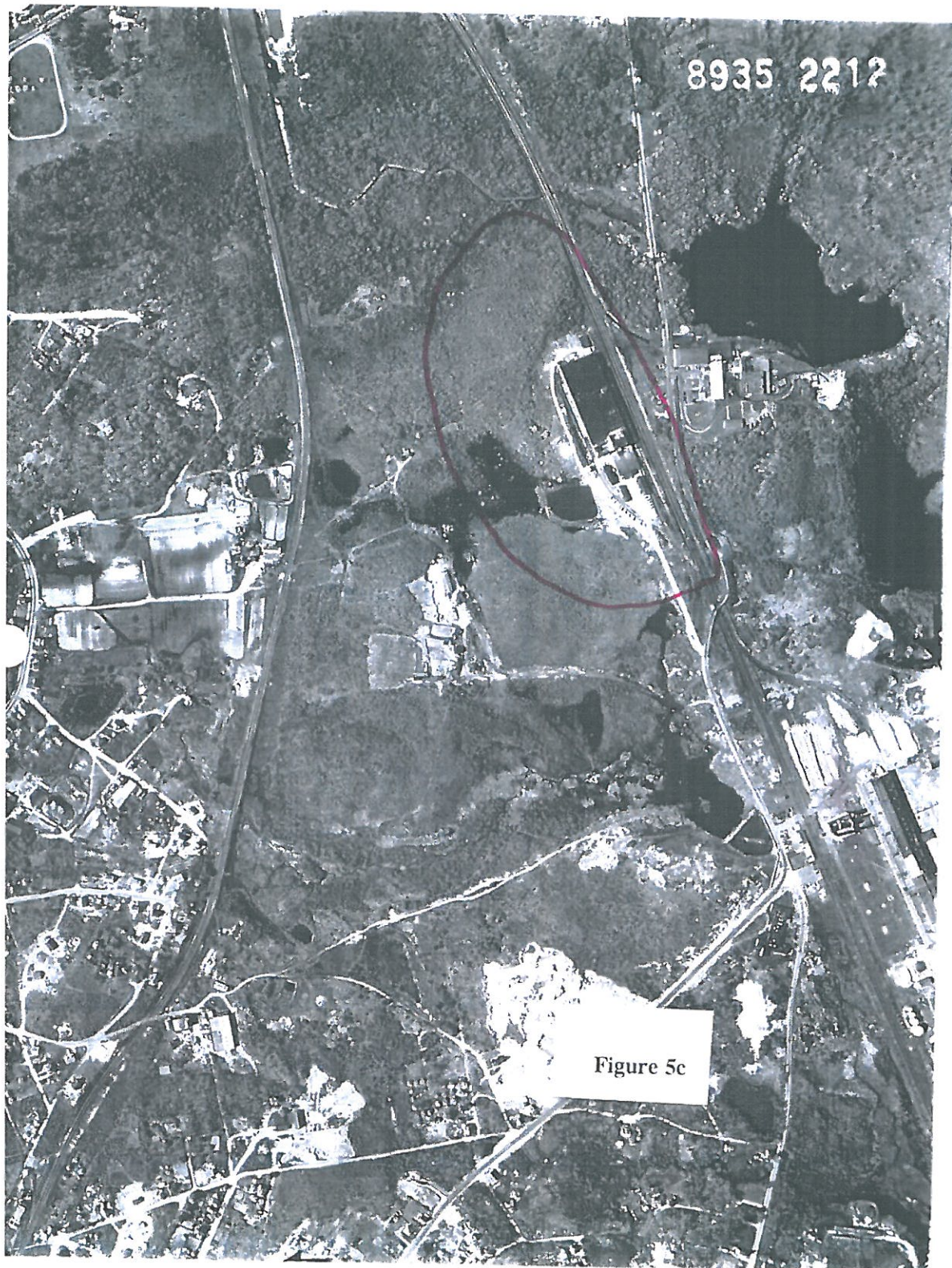
Figure 5a





Figure 5b







GS F 9 205

EASTMAN TOPOGRAPHIC NITRATE

EASTMAN TOPOGRAPHIC NITRATE

EASTMAN TOPOGRAPHIC NITRATE

Figure 5d

